Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL GUIDELINE CLEARINGHOUSE

General

Guideline Title

Best evidence statement (BESt). Communication of health care information to patients and caregivers using multiple means.

Bibliographic Source(s)

Cincinnati Children's Hospital Medical Center. Best evidence statement (BESt). Communication of health care information to patients and caregivers using multiple means. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2011 May 12. 5 p. [11 references]

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

The strength of the recommendation (strongly recommended, recommended, or no recommendation) and the quality of the evidence (1a-5b) are defined at the end of the "Major Recommendations" field.

It is recommended that healthcare professionals communicate health care information to patients and caregivers using multiple means (Johnson & Sandford, 2005 [1b]; Hill & Bird, 2003 [2a]; Hatonen et al., 2010 [4b]; Akkuzu et al., 2009 [4b]; Huang et al., 2002 [4b]; Houts et al., 2001 [4b]; Jonas & Worsley-Cox, 2000 [4b]; Murphy et al., 2000 [4b]; Watson & Thompson, 1983 [4b]).

> Note: Considerations need to be taken when providing written and/or verbal information to improve health literacy and understanding. This includes:
>
> - Standardization of verbal and written discharge information (Isaacman et al., 1992 [2a])
> - Appropriate use of literacy levels for the intended audience (Akkuzu et al., 2009 [4b]; Houts et al., 2001 [4b]; Jonas & Worsley-Cox, 2000 [4b]; Murphy et al., 2000 [4b])
> - Limited use of medical terminology (Akkuzu et al., 2009 [4b])
> - Using a concise style of communication, such as use of active versus passive voice, clearly emphasizing main points, and avoiding long sentences (Akkuzu et al., 2009 [4b])
> - Appropriate and selective use of visual aids, including but not limited to pictographs (Akkuzu et al., 2009 [4b]; Houts et al., 2001 [4b]); PowerPoint (Patel, Moles, & Cunningham, 2008 [4a]); and video (Murphy et al., 2000 [4b]).

Definitions:

Table of Evidence Levels

Quality Level	Definition
1a† or 1b†	Systematic review, meta-analysis, or meta-synthesis of multiple studies
2a or 2b	Best study design for domain
3a or 3b	Fair study design for domain
4a or 4b	Weak study design for domain
5 or 5a or 5b	Other: General review, expert opinion, case report, consensus report, or guideline

†a = good quality study; b = lesser quality study

Table of Recommendation Strength

Strength	Definition
"Strongly recommended"	There is consensus that benefits clearly outweigh risks and burdens (or vice-versa for negative recommendations).
"Recommended"	There is consensus that benefits are closely balanced with risks and burdens.
No recommendation made	There is lack of consensus to direct development of a recommendation.
Dimensions: In determining the strength of a recommendation, the development group makes a considered judgment in a consensus process that incorporates critically appraised evidence, clinical experience, and other dimensions as listed below.	
1. Grade of the body of evidence (see note above) 2. Safety/harm 3. Health benefit to patient (direct benefit) 4. Burden to patient of adherence to recommendation (cost, hassle, discomfort, pain, motivation, ability to adhere, time) 5. Cost-effectiveness to healthcare system (balance of cost/savings of resources, staff time, and supplies based on published studies or onsite analysis) 6. Directness (the extent to which the body of evidence directly answers the clinical question [population/problem, intervention, comparison, outcome]) 7. Impact on morbidity/mortality or quality of life	

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Conditions requiring occupational therapy/speech and language pathology (OT/SLP)

Guideline Category

Management

Clinical Specialty

Family Practice

Pediatrics

Psychiatry

Intended Users

Advanced Practice Nurses

Nurses

Occupational Therapists

Physician Assistants

Physicians

Speech-Language Pathologists

Guideline Objective(s)

To evaluate, in children 6-18 years old and their caregivers who are referred to occupational therapy/speech and language pathology (OT/SLP) within inpatient psychiatry, if communication through written information versus verbal information improves health literacy and understanding of discharge recommendations

Target Population

Children 6-18 years old and their caregivers who are referred to occupational therapy/speech and language pathology (OT/SLP) within inpatient psychiatry

Interventions and Practices Considered

Communication of healthcare information to patients and caregivers by multiple means (written, verbal):

- Standardization of information
- Appropriate use of literacy levels
- Concise style of communication
- Visual aids

Major Outcomes Considered

- Health literacy
- Understanding of discharge recommendations

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Search Strategy

Search Engines, Databases and Web Sources: OVID Medline, OVID CINAHL, Cochrane Database of Systematic Reviews, PubMed Clinical Queries, The Academic Center for Evidence-Based Practice, American Occupational Therapy Association, Clinically Appraised Topics (CAT) Banks, Centre for Evidence-based Medicine, Evidence-Based Occupational Therapy Web Portal, National Guideline Clearinghouse, OT Seeker, PEDro, University of Michigan Department of Pediatrics- Evidence-Based Pediatrics Website.

Search Terms: health literacy, client education, verbal information, patient education, patient discharge, written education, pamphlets, information dissemination, verbal, written, health education, verbal learning, communication, health knowledge, parents education, caregivers/or caregiver education, written education, written information, mental health services, client education, discharge

Search Limits: The initial search was conducted with the following limitations: English language, year 2000-2010, child (6 to 12 years), adolescent (13 to 18 years). An additional search removed age limitations in order to find more information (little information was revealed during initial searches with these limitations).

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Table of Evidence Levels

Quality Level	Definition
1a† or 1b†	Systematic review, meta-analysis, or meta-synthesis of multiple studies
2a or 2b	Best study design for domain
3a or 3b	Fair study design for domain
4a or 4b	Weak study design for domain
5 or 5a or 5b	Other: General review, expert opinion, case report, consensus report, or guideline

†a = good quality study; b = lesser quality study

Methods Used to Analyze the Evidence

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Not stated

Rating Scheme for the Strength of the Recommendations

Table of Recommendation Strength

Strength	Definition
"Strongly recommended"	There is consensus that benefits clearly outweigh risks and burdens (or vice-versa for negative recommendations).
"Recommended"	There is consensus that benefits are closely balanced with risks and burdens.
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Dimensions: In determining the strength of a recommendation, the development group makes a considered judgment in a consensus process that incorporates critically appraised evidence, clinical experience, and other dimensions as listed below.

1. Grade of the body of evidence (see note above)
2. Safety/harm
3. Health benefit to patient (direct benefit)
4. Burden to patient of adherence to recommendation (cost, hassle, discomfort, pain, motivation, ability to adhere, time)
5. Cost-effectiveness to healthcare system (balance of cost/savings of resources, staff time, and supplies based on published studies or onsite analysis)
6. Directness (the extent to which the body of evidence directly answers the clinical question [population/problem, intervention, comparison, outcome])
7. Impact on morbidity/mortality or quality of life

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

Reviewed against quality criteria by 2 independent reviewers.

Evidence Supporting the Recommendations

References Supporting the Recommendations

Akkuzu G, Arslantas S, Kosker SB, Sen S. Evaluation by patients and caregivers of the effectiveness of a brochure developed to prevent pressure ulcers. J Wound Ostomy Continence Nurs. 2009 Nov-Dec;36(6):610-5. PubMed

Hatonen H, Suhonen R, Warro H, Pitkanen A, Valimaki M. Patients' perceptions of patient education on psychiatric inpatient wards: a qualitative study. J Psychiatr Ment Health Nurs. 2010 May;17(4):335-41. PubMed

Hill J, Bird H. The development and evaluation of a drug information leaflet for patients with rheumatoid arthritis. Rheumatology (Oxford). 2003 Jan;42(1):66-70. PubMed

Houts PS, Witmer JT, Egeth HE, Loscalzo MJ, Zabora JR. Using pictographs to enhance recall of spoken medical instructions II. Patient Educ Couns. 2001 Jun;43(3):231-42. PubMed

Huang MC, Liu CC, Chi YC, Thomas K, Huang CC. Effects of educational intervention on changing parental practices for recurrent febrile convulsions in Taiwan. Epilepsia. 2002 Jan;43(1):81-6. PubMed

Isaacman DJ, Purvis K, Gyuro J, Anderson Y, Smith D. Standardized instructions: do they improve communication of discharge information from the emergency department. Pediatrics. 1992 Jun;89(6 Pt 2):1204-8. PubMed

Johnson A, Sandford J. Written and verbal information versus verbal information only for patients being discharged from acute hospital settings to home: systematic review. Health Educ Res. 2005 Aug;20(4):423-9. [17 references] PubMed

Jonas D, Worsley-Cox K. Information giving can be painless. J Child Health Care. 2000 Summer;4(2):55-8. PubMed

Murphy PW, Chesson AL, Walker L, Arnold CL, Chesson LM. Comparing the effectiveness of video and written material for improving knowledge among sleep disorders clinic patients with limited literacy skills. South Med J. 2000 Mar;93(3):297-304. PubMed

Patel JH, Moles DR, Cunningham SJ. Factors affecting information retention in orthodontic patients. Am J Orthod Dentofacial Orthop. 2008 Apr;133(4 Suppl):S61-7. PubMed

Watson B, Thompson R. Parents' perception of diagnostic reports and conferences. Lang Speech Hear Serv Sch. 1983;14(2):114.

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

The potential benefits to using multiple means of communication of healthcare information are decreased re-admission, decreased recovery time, increased confidence in self-care, increased satisfaction of services, increased knowledge of information, increased recall, and increased adherence to recommended care.

Potential Harms

Failure to consider individual needs of patients and caregivers (reading levels and education) has a potential risk for decreased understanding (potentially overwhelming and/or inappropriately matched to needs).

Qualifying Statements

Qualifying Statements

This Best Evidence Statement addresses only key points of care for the target population; it is not intended to be a comprehensive practice guideline. These recommendations result from review of literature and practices current at the time of their formulation. This Best Evidence Statement does not preclude using care modalities proven efficacious in studies published subsequent to the current revision of this document. This document is not intended to impose standards of care preventing selective variances from the recommendations to meet the specific and unique requirements of individual patients. Adherence to this Statement is voluntary. The clinician in light of the individual circumstances presented by the patient must make the ultimate judgment regarding the priority of any specific procedure.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Staying Healthy

IOM Domain

Effectiveness

Identifying Information and Availability

Bibliographic Source(s)

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2011 May 12

Guideline Developer(s)

Cincinnati Children's Hospital Medical Center - Hospital/Medical Center

Source(s) of Funding

Cincinnati Children's Hospital Medical Center

Guideline Committee

Occupational Therapy and Speech Pathology Evidence-based Practice (EBP) Team

Composition of Group That Authored the Guideline

Team Members and Contributors: Lindy Tomawis, MOT, OTR/L, Team Leader, Division of Occupational and Physical Therapy; Mallory Carter, MS, CCC-SLP, Division of Speech Pathology; Lisa Carvitti, MOT, OTR/L, Division of Occupational and Physical Therapy; Tabetha Frost, MS, OTR/L, Division of Occupational and Physical Therapy; Dawn Girten, MA, CCC-SLP, Division of Speech Pathology; Katherine McCormick, MOT, OTR/L, Division of Occupational and Physical Therapy; April Nelson MA, CCC-SLP, Division of Speech Pathology; Sarah Schnieber, MS, CCC-SLP, Division of Speech Pathology; Matthew Schwendeman, OTR/L, Division of Occupational and Physical Therapy; Brigid Weber, MOT, OTR/L, Division of Occupational and Physical Therapy

Senior Clinical Directors: Rebecca D. Reder, OTD, OTR/L, Division of Occupational Therapy and Physical Therapy; Ann W. Kummer, PhD, CCC-SLP, ASHA-F, Division of Speech Pathology

Ad Hoc Members: Erin Redle, PhD, CCC-SLP, Division of Speech Pathology

James M. Anderson Center for Health Systems Excellence: Karen Vonderhaar, MS, RN, Methodologist, Guidelines Program Administrator; Alison Kissling, BA, MLIS, Pratt Library

CCHMC Reviewer(s): Shelley Goldman, RN, BSN, LICDC, Child and Adolescent Services; Joan Morgan, MSHA, MBA, RN, Patient/Family Education Center for Professional Excellence/Education

Ad hoc Advisors: Mary Gilene, MBA, Division of Occupational Therapy and Physical Therapy; Michelle Kiger, OTR/L, Division of Occupational Therapy and Physical Therapy

Financial Disclosures/Conflicts of Interest

All Team Members and Anderson Center support staff listed above have signed a conflict of interest declaration, and no conflicts of interest were found.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available from the Cincinnati Children's Hospital Medical Center .

Print copies: For information regarding the full-text guideline, print copies, or evidence-based practice support services contact the Cincinnati Children's Hospital Medical Center Health James M. Anderson Center for Health Systems Excellence at EBDMInfo@cchmc.org.

Availability of Companion Documents

The following are available:

- Judging the strength of a recommendation. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2008 Jan. 1 p. Available from the Cincinnati Children's Hospital Medical Center .
- Grading a body of evidence to answer a clinical question. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 1 p. Available from the Cincinnati Children's Hospital Medical Center .
- Table of evidence levels. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2008 Feb 29. 1 p. Available from the Cincinnati Children's Hospital Medical Center .

Print copies: For information regarding the full-text guideline, print copies, or evidence-based practice support services contact the Cincinnati Children's Hospital Medical Center Health James M. Anderson Center for Health Systems Excellence at EBDMInfo@cchmc.org.

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on November 18, 2011.

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Readers with questions regarding guideline content are directed to contact the guideline developer.